

• C o u n t e r p o i s e •

The Amateur Radio Club of El Cajon

Volume XLVIII

October 2007

Number 10



Amateur Radio Club of El Cajon meets every 2nd Thursday at 7:00 pm at the First Lutheran Church of El Cajon. The address is 867 South Lincoln Ave. Next meeting:

October 11, 2007 7:00 pm

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All Official written communication is to be submitted to:

A.R.C.E.C. P.O. Box 50, El Cajon, CA 92022

The Counterpoise is a publication of the Amateur Radio Club of El Cajon (ARCEC). It is published once monthly and contributions are accepted from officers and members of the club. We also encourage input from members of the Amateur Radio Club of El Cajon. Opinions expressed are solely that of the author and do not necessarily reflect the opinions of the Amateur Radio Club of El Cajon (ARCEC). Articles may be submitted either by e-mail or mail to the editor.

Paul Rios at:

WA6BGScounterpoise@cox.net or by post
1237 Victor Ave #4, El Cajon, CA 92021

The Deadline is Sunday after the General Meeting.

Amateur Radio Club of El Cajon

Web Site: <http://www.wa6bgs.org>

Counterpoise E-Mail address

WA6BGScounterpoise@cox.net



October's Meeting

By: Gordon AE6QW

Third Order Dynamic Range in HF Receivers
OR Much ado about something?

Evaluation of HF receiver test measurements: What do Third Order dynamic range numbers mean for real life receiver operation.

2007 Officers

President	KC6QLS	Paul Rios	593-9445
Vice-President	AI6O	Ed Felter	668-0928
Secretary	N6OPH	Mike Maston	296-9067
Treasurer	KG6JCW	Mike "Stogie" Panger	263-4439

2007 Board of Directors

Affiliated Clubs	AE6AV	Larry Plummer	460-1818
Instructor	AE6QW	Gordon Shackelford	561-6323
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Social	KD6PRV	Anselmo Ruiz	574-0720

2007 Standing Committees

Bylaws	KF6XY	John Cordle	697-2700
Club Attire	K6PKS	Paul Schmidt	733-2284
Counterpoise Editor	KC6QLS	Paul Rios	593-9445
Education	N6OPH	Mike Maston	296-9067
Elmer	WA6L	John Graf	368-7413
EOC H2O District	KF6XY	John Cordle	697-2700
Estate Sales	N6JOJ	Tom Myrick	449-3547
Field Day	AI6O	Ed Felter	668-0928
Health & Welfare	KF6XY	John Cordle	697-2700
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Photographer	KI6EEL	Bridget Rios	
Post Mistress	KC6TBG	Ann Rios	593-9445
Prizes	AF6BC	Floyd Lang	303-6711
Public Relations	KC6QLS	Paul Rios	593-9445
SANDARC Delegate	K5WFW	Len Fulbright	258-1322
Swap Meet	N6JOJ	Tom Myrick	449-3547
Technical	W6RHW	Bob Boehme	448-4728
Ticket Lady	KI6EEK	Lisie Rios	
WA6BGS Trustee	AE6CQ	Michael Martak	562-6477
WAMO	W6CCM	Erich Bennett	401-7332
Web Master	KC6QLS	Paul Rios	593-9445
Welcome	KI6JUD	Linda Weed	

Staff and Writers

KC6QLS	Paul	Editor
AI6O	ED	Vice President
N6OPH	Mike	Meeting Minutes
KI6FIH	Tassy	HAM Spot Light
AE6CQ	Michael	WAMO
W5COM	Tom & Lisie	Jokes
N6NKJ	Rich	Amateur Radio at Large
WA6L	John	Down Below in EC
WA6MHZ	Pat	Crest Radio Museum
KI6EEL	Bridget	Photos

SANTEE DRIVE-IN SWAP MEET

10990 Woodside Ave., North
FOR INFORMATION, CALL 449-SWAP
Ham Radio, Computers, Electronics
ACRES & ACRES OF BARGAINS
1st & 3rd Saturday of the Month
GATES OPEN 6:30 AM

From The President

Paul KC6QLS



On the 6th of October we will be at the Fire Station 6 Open House in El Cajon. So come on down and help support us by wearing your green shirt and help talk up Amateur Radio to the general public.

I hope by the time you read this our CAL FIRE Proposal has been cleared and approved and we are on our way to getting the equipment for CAL FIRE. Trying to get funding for CAL FIRE equipment through SANDARC has been an uphill battle with many landmines along the way. As President, I will always keep The Amateur Radio Club of El Cajon strong in the quest to keep things real, above board, and accurate.

I believe we are on the right path and heading in a positive direction. Our club has been around for a long time, and we will continue to uphold the values and traditions of the ARCEC leadership before us.

One last item, the participation has been falling in the San Diego Digital VHF Net on Thursday night at 8 PM. Has the newness fallen? We have moved to PSK 63 to speed things up. At the next meeting, let's talk about the net and get people back into it. It's a lot of FUN!

73, Paul Rios, KC6QLS President

VEC Testing Sites

1 st Saturday:	El Cajon 10:00 am First Lutheran Church of EC 867 South Lincoln Ave.
2 nd Saturday:	Carlsbad 9:30 am Carlsbad Safety Center Orion Way Carlsbad
3 rd Saturday:	North Park 10:00 am North Park Recreation Center 4044 Idaho Street San Diego
4 th Saturday:	Chula Vista 8:30 am Fire Station #7 1640 Santa Venetia Chula Vista
5 th or last Saturday:	Escondido 9:00 am LDS Church 1917 East Washington St.

To make advance reservations or to find out more info from the site captain, please call 465-EXAM (3926)

Amateur Radio Club of El Cajon

General Membership Meeting
13 September 2007



The general membership meeting of the Amateur Radio Club of El Cajon was called to order by club president Paul Rios, KC6QLS at 1915hrs. Dick Norton, N6AA the ARRL SW Division Director reported on the Torrance convention and other ARRL topics.

SECRETARY'S report was approved as read from the *Counterpoise*. This was done because the *Counterpoise* had not yet been published.

EDUCATION chairman Mike, N6OPH reported that the extra theory course started on Tuesday 11 September. There was a total of 12 students in attendance. Steve Early will be teaching a class on 13 October in the north county. Another technician class will be held on 9 October.

TREASURER Stogie Panger, KG6JCW reported on the status of the club treasury. His report was approved as read and filed for audit.

PRESIDENT Rios made several announcements of upcoming club activities and the need for more people for the spotlight.

A round table discussion was held on various Amateur Radio topics. There was quite a bit of participation and was received very well from the membership.

After the break, Mike, N6OPH read the two proposals regarding the possible purchase of radio equipment for CALFIRE. Two proposals were offered for consideration. Proposal A was offered by CERO was the first item of discussion. This proposal requested that SANDARC buy/reimburse ARES for up to \$3000. The main feature of this proposal was that the main radios would be Yaesu FT-8900 quad band transceivers. This proposal also contained language requesting that CALFIRE take a particular course of action. Proposal A was defeated. Proposal B was offered by the ARCEC. The total expenditure authorized would be \$2100 and would include the purchase of Yaesu FT-8800 dual band transceivers. This proposal also mandated that SANDARC would retain title and act as a trustee for the equipment. The equipment would also be on permanent loan to CALFIRE. This proposal was approved.

Many improvements have been made to the ARCEC website including videos that are also on YouTube.

MEMBERSHIP total is 264 paid members. 34 members attended this evening's meeting.

The next social item will be the Christmas Party. The October meeting will feature a discussion of receivers by Gordon our current extra class theory instructor. The November meeting will feature the Home Brew Contest and in December there will be elections and the Christmas Party.

There being no further business before the general membership, the meeting was adjourned at 2130hrs.

Respectfully submitted

Michael P Maston, N6OPH
Secretary
Amateur Radio Club of El Cajon

HOME BREW RULES

Amateur Radio Club of El Cajon

1. All home brew projects must have been constructed during the calendar year of 2007.
2. All home brew projects must be original works. No kits please.
3. The home brew contest will consist of three categories; Novice, Advanced and Antenna.
4. Novice class would be reserved for beginners who are constructing their first project.
5. Advanced class would be for those who are experienced in the art of home brewing. It would be as complex as practicable.
6. The antenna class would consist of a transmitting antenna for any amateur frequency.
7. All home brew projects must be explained by the builder and demonstrated before the general membership. All projects must function as described.
8. Each home brew class will consist of first, second and third places. The winner of each class would be awarded an appropriate plaque.
9. The judging would be accomplished by three volunteers selected by the club president. Any licensed amateur radio operator and club member is illegible to be a judge. The decision of the judges is final. No sour grapes please.
10. The purpose of the home brew contest is to demonstrate just one of the many capabilities of the amateur radio community. Build and have fun!!

From The Vice President AI6O ED



There is a lot of talk right now regarding the sunspot cycle—and with good reason. I was talking to a long time ham on Saturday and he indicated that usually he would have at least a few contacts through the summer with the JA hams. Not one contact this summer! I remember not that long ago that I could get into the shack by 7 p.m. or so and still have some good 20 meter contacts. Not so now on most days as the band is already gone. Just last week the ARRL reported that we had just had 6 consecutive days with sunspot counts of 0 (zero!!).

What can we do? Not a whole lot about mother nature—it is what it is (short of a new KW linear or 6 element Yagi!!). What would be great is for more of our club members to check into the club nets. There are several different nets available on different schedules, frequencies, and modes. Check this issue or the website (www.wa6bgs.org) for all net information. Taking the time to check into a club net once a week will strengthen the club and help "keep us on the air".

This is also a great time to build local relationships. It is a good time to increase our knowledge and understanding of all the possibilities of local operations, whether for emergencies, community relations, or for "elmering" purposes.

I hope to see you on the club repeaters or other gathering frequencies!

Straight ahead!
Ed, AI6O

WA6BGS Nets

Mike Oberbauer:	KG6TDP	Net Manger
Mike Oberbauer:	KG6TDP	Net Controller
Frito	N6WKB	Wide Open Nets
Ed Felter	AI6O	WAMO/D

WAMO NETS:

Wednesday and Saturday Nights
8:00 pm local time 7:30 "Checkins"

Tuesday Night Rag Chew net:
8:00 pm

Nets held on club repeaters

WA6BGS Repeaters

RX 147.420 (146.475) 107.2 PL

RX 224.080 – 107.2 PL

RX 445.900 – 107.2 PL

Don't miss it. All members welcome.

New WAMO/D Net

ARCEC, San Diego Digital VHF Net

Time: 8:00 p.m.

Day: Thurs. "Except 2nd Thurs. of the month"

Mode: PSK31

Frequency: 50.290 MHz. and a QSY to 144.144 MHz

This is an open net and all are invited. Early check-ins will be taken. Hope to see you on the waterfall!

WAMO means Worked All Members Only. The purpose of WAMO is to encourage people to people communication between club members and to publicize the name of the club among fellow amateurs.


Calendar of Events October 2007

Oct.	2:	Board Meeting, 7:00 pm
Oct.	4:	SDDVHF PSK Net 8 PM 20.290 MHz
Oct.	6:	Swap Meet, Santee Drive In, 6:30 am
Oct.	6:	T-Hunt, Grossmont College lot, 6:00 pm
Oct.	11:	General Meeting, 7:00 pm
Oct.	15:	Counterpoise Dead Line
Oct.	18:	SDDVHF PSK Net 8 PM 20.290 MHz
Oct.	20:	Swap Meet, Santee Drive In, 6:30 am
Oct.	20:	T-Hunt, Grossmont College lot, 6:00 pm
Oct.	25:	SDDVHF PSK Net 8 PM 20.290 MHz
Oct.	31:	Halloween
Nov.	1:	SDDVHF PSK Net 8 PM 20.290 MHz

Upcoming Event Dates

Oct.	6:	Fire Station Open House
Nov.	18:	Mother Goose Parade
Dec.	18:	"Tuesday" Christmas Party

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San Diego, CA 92123
(858) 560-4900 or 1-800-854-6046

The Counterpoise is also online in FULL COLOR. Check it out and the club's website at: www.wa6bgs.org

Get your advanced copy by e-mail. I will send it out in .PDF format the night it goes to print. E-mail me and let me know that you would like a copy. Size of file may be up to 1.5 mb at times.

Change of Address

Moving?

Do not miss an issue of the Counterpoise. Fill out the Change of address form below.

Call _____ WAMO# _____
Name _____
Address _____
City _____ State _____ Zip _____
New Address:
Address _____
City _____ State _____ Zip _____

Send to Membership Chairperson:
A.R.C.E.C./ P.O. Box 50, El Cajon, CA 92022

ARCEC Membership Application

1. Amateur Call Sign	2. Class of License
3. First Name	4. Last Name
5. Street Address	6. City, State, Zip+4
7. Home Phone	8. Work Phone
May we list: Y N	
9. DOB	10. e-mail
11. ARRL Member Yes no	12. ARES Member Yes No
13. RACES Member Yes No	14. Sponsored by: or Family Member

Return this form with check made payable to the Amateur Radio Club of El Cajon or ARCEC for new or renewal membership. Annual Dues \$18.00 for Individual, \$30.00 for family. New members add \$5.00 per member. Include your call on Check. Mail to
Membership Chairperson
A.R.C.E.C, P.O. Box 50, El Cajon, CA 92022

New () or Renewal ()	WAMO Number
Certificate Issued	Dues from _____ To _____
Paid Cash ()	Check No. Date Paid:
Check ()	

Computer Roster Available

Want the roster sent to you via e-mail? Send an e-mail to Ann Rios KC6TBG, and she will send you the database back as an attachment. She uses Excel, but may be able to convert to various formats if asked. Send your request to 619-593-9445 or KC6TBG@cox.net

FUN PAGE

Birthdays October

October 1	KI6CHY	Norman	Weber
October 2	AI6O	Ed	Felter
October 5	KG6UQA	Lee	Martin
October 12	WB6IMN	Ed	Kennedy
October 12	KE6YPS	Richard	Dickson
October 13	KN6HQ	Frank	Sheeler
October 15	W6VJT	Pat	Chambers
October 23	KD6DCO	Doug	Goodman
October 24		Maryetta	Castro
October 26	KH6VO	Jim	McManigle
October 26	KI6DZI	Roy	Patterson
October 29	K6VM	Chet	Smith
October 29	KD6WRO	Peggy	Bostick
October 31	KI6JWB	John	Berry

Brain Thinkers

October 2007

- 1= the L. N. 1 the Loneliest Number
- 2= T. In the W. T. C. 2 Towers in the World Trade Center
- 3=F. In a Y. 3 Feet in a Yard
- This Months -----
- 2= C. B. as B. as O.
- 3= W. in M.
- 31= D. in the M. O.



Frito Wide Open Net
WA6BGS Repeter Tue. Night
Freq. 147.420 8:00 pm
Bring your Chips and sit back
and have Fun. Open to All

Word Search "Halloween"

C	A	R	M	E	L	A	P	P	L	E	L	W	G	H	J
A	W	A	F	V	F	Q	K	W	D	W	M	Q	K	A	L
U	Q	G	M	Q	G	G	H	O	U	L	S	L	C	U	A
L	G	R	A	V	E	Y	A	R	D	F	Y	K	U	N	K
D	O	H	G	W	F	W	L	G	A	U	O	A	R	T	G
R	O	W	O	Y	L	A	L	Q	W	L	Q	M	S	E	W
O	D	A	L	S	M	X	O	D	A	L	W	F	E	S	B
N	I	S	F	G	T	L	W	T	Z	M	A	X	S	A	L
Q	E	K	W	A	F	K	E	H	L	O	K	Y	W	D	A
L	S	E	Y	K	D	R	E	A	M	O	D	T	Q	G	C
W	K	L	Q	X	N	G	N	Q	D	N	S	R	K	S	K
A	F	T	K	Y	W	X	Q	G	A	Q	D	A	F	Q	C
G	W	O	R	C	E	R	A	C	S	L	G	P	X	F	A
M	F	N	F	D	Q	E	M	Z	F	X	M	K	T	A	Z
K	L	S	E	H	C	T	I	W	Q	F	T	Y	Q	L	S
Y	G	Q	K	X	A	M	A	Y	G	K	A	G	D	M	Y
N	I	K	P	M	U	P	L	M	A	L	B	R	E	W	Q

- | | |
|--------------------------------------|---------------------------------------|
| <input type="checkbox"/> BAT | <input type="checkbox"/> GOODIES |
| <input type="checkbox"/> BLACKCATS | <input type="checkbox"/> GRAVEYARD |
| <input type="checkbox"/> BREW | <input type="checkbox"/> HALLOWEEN |
| <input type="checkbox"/> CANDY | <input type="checkbox"/> HAUNTED |
| <input type="checkbox"/> CARMELAPPLE | <input type="checkbox"/> JACKOLANTERN |
| <input type="checkbox"/> CAULDRON | <input type="checkbox"/> PARTY |
| <input type="checkbox"/> CURSES | <input type="checkbox"/> SCARECROW |
| <input type="checkbox"/> FULLMOON | <input type="checkbox"/> PUMPKIN |
| <input type="checkbox"/> GHOST | <input type="checkbox"/> SKELTONS |
| <input type="checkbox"/> GHOULS | <input type="checkbox"/> WITCHES |

Last Months Word Search

R	E	P	A	I	R	E	G	D	E	L	W	O	N	K	T
W	Z	V	S	X	O	Q	W	J	T	M	O	C	T	R	Q
L	G	D	N	W	S	U	E	L	P	A	C	T	T	A	R
Q	H	O	I	K	U	P	V	L	X	N	H	T	X	T	L
T	A	F	T	L	X	G	H	Q	U	J	A	Q	S	W	J
D	V	J	T	R	I	A	L	D	J	A	V	M	L	S	J
X	G	A	S	L	W	O	Z	W	T	I	O	E	G	S	O
E	C	N	I	R	E	P	X	T	Z	E	H	W	E	E	F
R	W	S	U	O	Z	L	H	N	C	W	D	C	L	R	C
R	L	W	Q	H	T	W	O	F	T	X	S	X	D	N	
O	F	E	W	J	X	H	J	Z	N	Q	E	W	O	F	A
R	G	R	Z	D	F	G	L	V	U	G	D	U	J		
J	Q	S	M	O	D	E	F	H	C	L	P	Q	H	U	S
L	H	O	R	Q	J	L	Z	L	A	G	U	L	S	W	
O	G	C	A	V	A	M	O	D	A	V	F	E	Q	L	S
V	I	X	Q	D	Z	E	O	Z	N	X	S	A	D	J	S
M	G	T	A	O	T	R	G	D	W	J	L	O	T	Q	A



John Graf, WA6L WAMO# 1711 is originally from Chicago, but left there at age 19 to join the Marine Corps. What started as a four-year enlistment ended up as a 20-year career that took him all over the world? It was while in Hawaii in 1979 that he first got interested in Ham radio and obtained the Novice call of WH6AKX.

He later upgraded to Advanced and got the call AH6CL. Soon afterwards, he was transferred to California and received the call KK6MS. That call stuck for the next 15 years, until finally upgrading to Extra and getting WA6L.

According to John, being a Ham while in the service is a lot of fun. You get to go on DXpeditions" that are completely paid for by Uncle Sam! One of the highlights was living in Japan for four years and getting the reciprocal call of 7J4AAD. It was great to work as a DX station and talk back to the states. It was also wonderful meeting other Japanese Hams and seeing all the technology that came out of that country.

John retired from the Marines in California in 1992. There were a few years when Ham radio had to take a back seat to a new career and a new marriage. However, when he moved to Alpine in 1998, he was able to get some equipment back on the air and he hasn't looked back.

John believes that in order to stay interested in Ham Radio, you have to keep challenging yourself. He likes to participate in contests and chase DX. CW is his favorite mode, but he is also active on the digital modes, especially PSK.

QRP is another challenge that John really enjoys. According to John, "QRP is the only part of Ham Radio where you can still make your own gear and run all day off a battery." John has completed several QRP rigs from kits and plans, and has

others in the works. His longest contact with QRP (5 watts) was to Russia, which worked out to be over 1,000 miles per watt!

John has been a member of the El Cajon Club since last September and enjoys the many club activities. After seeing the club presentation on the Animal Rescue Reserve, he joined that group and has been active ever since. Most recently he worked as a radio "scout" during the fires in Julian.

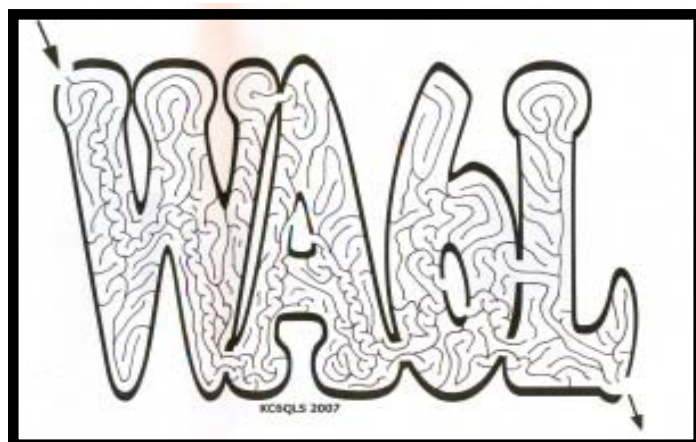
John lives with his wife Lee, 6 horses, 2 dogs, 3 cats, various chickens and turkeys, and a pig named Elwood. He has a ridge behind his house that provides VHF coverage throughout the entire San Diego area, and he has entered negotiations with Lee to put a tower up there for HF.

No longer just a voice on the radio, the spotlight shines on John Graf, WA6L.

73!



MAZE



Jokes

"What did one ghost say to another?"

"Do you believe in people?"

Lisie KI6EEK

The Editor's
Corner
KC6QLS Paul



Public Relations

After the Open House at Fire Station 6, I'm planning to talk with Monica Zech and see what we can do for the City of El Cajon. At our October meeting, I will be asking what you would like to do for the City of El Cajon and see how you feel about getting more involved with the City.

Editor's Corner

I'm working on a new puzzle for the Fun Page. I think we have something here. I may have to alternate the word search with the new puzzle. This month I would like to thank all Columnists for getting the articles in on time. It really makes it much easier to crunch out the Counterpoise.

I personally liked the story last month about the "Marbles." The time we have on earth is short and we need to take time to slow down and appreciate the time we have with others. After my back surgery and complications, I took a hard look at my life and I appreciate it a lot more. I now try to take time to stop and "Smell the Roses". This reminds me of the tune "Cat's in the Cradle" by Cat Stevens.

Paul, KC6QLS

AI60	FELTER FINANCIAL GROUP, INC Financial and Estate Planning
	Ed Felter, President
	8080 La Mesa Blvd Suite #113 La Mesa CA 91941 Phone: (619) 668-0929 Fax: (619) 668-5666 E-mail: edfelter@pacbell.net

Volunteers Needed

Up Coming Events

FS #6 Open House

Mother Goose Parade

Please Sign up at the next meeting

E-Mail

Address for the Counterpoise. Please submit all *Counterpoise* Mail to:

WA6BGScounterpoise@cox.net

Prize Table Needs Help

Thank you for your contributions to the Prize Table! We still need your Support and Help or it may just end up a thing of the past. Please contact: Floyd Lang AF6BC at 303-6711.

Things to keep in mind

Get on the El Cajon ARC Reflector

To sign up visit:

<http://groups.yahoo.com/group/elcajonarc/>

You will get the latest news about The Club and things going on in the Ham world.

Quote of the Month

"If I had to choose to share a foxhole with them, I would be better off standing outside the Foxhole and taking the shots from known enemies."

- Artens, *The Maze Guy*

For Amateur Radio Public Relations San Diego
Please visit
www.arprsd.org



Crest Radio Museum

Pat Bunsold, WA6MHZ



More Boatanchor Restoration Tips

SO you win an old radio on Ebay or pick one up at the Swapmeet. Do you just go home and PLUG IT IN??? ONLY if you want to blow it up! And so there are thousands of radios out there blown up needlessly, because of people just "plugging them in". With new radios, it is not a problem. In fact, with UP radios (Microprocessor) you can't do what I am about to describe. They need full voltage immediately. But Old radios sitting in a barn for decades have to be brought up very gently and carefully. I used to put them on a Variac and turn them up a little at a time until I reached 110VAC and the radio was playing. But that is not the proper procedure, and though a lot better than just plugging them in, the ideal method is as follows. This is called REFORMING the capacitors.

Old capacitors forget what voltage they are good for. If left to sit for years, they loose their ability to work at the rated voltage unless the Oxide layer inside is "reformed". Many restorers just go out and buy all new caps and put them in. I say that is NOT KOSHER as you are putting 2007 parts in a 1935 radio!!! It is no longer a vintage radio, it is like a Hot Rod. A vintage Shell with new motor and running gear. Now, if you want a radio to play and play, that may be a way to go, but it will never pass for ORIGINAL. I want all the parts in the radio to be the way it came from the factory, or a suitable replacement from the exact era the radio was made. That is why I always scarf up old boxes of capacitors and resistors, to use as replacements. Back to the capacitor.

Slowly increasing the voltage with the variac will work, but it requires a lot of patience and time, neither which I have. The best way is to use a device made just for what we are about to do. It is the Heathkit IT-11 or IT-28 Capacitor Checker. You will see a rotary switch on the right with voltages increasing in small increments from 3V to 600V. Just what we want!

First, unsolder the wires from the main electrolytic in the radio, usually a can cap with multiple sections. Sometimes it is a tubular with a lot of leads coming out of it. Make sure you write down where the wires go!!! I find the cap needs disconnected from everything. The IT-11/28 has a pretty green magic Eye tube which has a little triangle at the bottom which opens and closes. Set the tester to LEAKAGE and connect the TEST terminals to the cap. Make sure you get the MINUS to ground or there will be an Explosion!!! Set the voltage to 3V and slowly start incrementing the range a click at a time until the magic eye closes. Here is where

we start to reform the cap. If it is a 400V cap, it will probably first close around 50 to 100V. Let it rest when closed and watch the eye. Eventually it will open giving a black triangle at the bottom, and now it is time to go to the next voltage level. Remember, if it is a 450V cap, don't go past the 450V range or you may blow it up!! As each range is advanced, it takes longer and longer to open the eye. But finally it will. I put a current meter in series with the leads to see what was happening. When a new voltage range is selected, the drain is about 3mA. (Eye fully closed) As the capacitor starts to reform, the current will drop. That is one way to see the progress and make sure the cap is feasible to reform. Bit by bit, the current goes down, until it gets to about 1.5mA and then the magic eye is all the way open. As I type, I am reforming the cap in a Hallicrafters S-107 receiver. When I received it, it was cooked out. The CLOWN who had it before JUST PLUGGED IT IN and wondered why it didn't work. What happened is that the 5Y3 rectifier tube tried to pump voltage into a capacitor acting shorted, and it Blew up the tube!!! Luckily the capacitor is reforming nicely and I have only 50V to go before it is in top shape and ready to play.

You can find Heathkit IT-28s & 11s on Ebay or at Swapmeets, they aren't cheap but they are worth their weight in GOLD!!! For they SAVE RADIOS!!! This S-107 will be playing great within the hour. The next pic is of a Hallicrafters S-41G also being reformed. This one was a tough one. Still on the first cap section, it has taken hours. 3 sections to go! Patience!!!

One more tip! I just learned this on the Hallicrafters S-41G. If you hear great distortion on the audio output that just won't go away, it is because of a leaky coupling capacitor between the audio driver plate and the audio power amp grid. For some reason, these frequently fail! I found another .01 tubular in my vast junkyard that was of the perfect era to replace it. Works great now!

73!

Pat WA6MHZ
Curator
Crest Radio Museum



DOWN BELOW IN EL CAJON

LIFE BELOW 50 MHz

Back in the day of wooden ships and sails; when some of our older hams were just children, there existed the Doldrums. These were calm winds that existed near the equator on Pacific trade routes. and sailors of the day dreaded them.

To be caught in the Doldrums was to be stuck in the middle of the ocean for weeks, with no way out and little to do. Some went mad, while others found ways to fill the time with scrimshaw, whittling, or other crafts.

Is Amateur Radio in the Doldrums? You would think so with all the talk of the "low spot in the solar cycle" and the many complaints about lack of contacts! As far as I know, nobody has hanged themselves from their Yagi, but I hear the desperation in the voice of many a Ham.

Yes, the "winds" of better propagation are still some time away. But I am here to tell you that there is plenty to do while you are waiting for that sunspot number to rise. You could take up whittling I suppose, but I have a few better ideas.

The next time you are bemoaning the fact that you can't raise DX like you did in the "Good Old Days" of 2003, I invite you to pick something from the following list and give it a try. I guarantee that you will learn something, have fun, and in the end become a better operator. The best part is that whichever one of these you pick, there is help available right here in the El Cajon Club.

1. Try PSK: For those who haven't tried this digital mode, you are in for a great time! PSK31 uses less bandwidth than a CW signal, and can often get through when other modes can't. There is still plenty of DX to be had with PSK on 20 Meters — even into the night. You will need a computer, a sound card, an interface, and some (free) software. We have plenty of folks here in El Cajon who can help you get up and running in no time!

2. Try CW: There is a myth that you have to be able to run 25 WPM to do CW. Nothing could be further from the truth! There are plenty of Hams on the air that would love — absolutely LOVE — to be your first CW contact! Push the fear aside and give it a try. 14.058 MHz is a great place to start and the Hams there will come back to you at any speed you choose. Oh — and I forgot to mention, there is still plenty of contacts and plenty of DX to be had on CW, even at this point in the solar cycle!

3. Go VHF/UHF: I realize that this column is dedicated to the HF enthusiast, but we all have to try something new! It is easy to put up a VHF or UHF antenna, and many of the modern HF rigs already

have 6M capabilities built-in. Put something together and see who you can talk to! DX will take on a whole new meaning, and you will have a heck of a lot of fun.

4. Build a kit: I guess that this is the modern equivalent of doing scrimshaw on the boat. Building a kit can be one of the most rewarding activities you can do in Amateur Radio. Not only is it fun to do, but when you are finished you have something that you can use for years and years to come. If you are new to kit building, start with something simple. The 4:1 balun from Elecraft (<http://www.elecraft.com>) is a great first kit and a very useful item. Once you start building, you will get hooked!

5. Build an antenna: This is even easier than building a kit and just as useful! Check back issues of QST for ideas, or just ask your fellow Hams. You definitely owe it to yourself to go see Ken's (KI6HRH) antenna that he built from commonly available items. It is a great project and really seems to get signals out there. You can also do amazing things with just a spool of wire and a few poles to attach it to.

6. Enter a contest: You want contacts? You got contacts! Contests are the one time when everyone wants to contact YOU! There are contests virtually every weekend and with every mode. Study the rules and get on the air. Nobody else in the contest cares how long you have been a Ham, how new/fancy your rig is, or how many contests you have been in. All they want is for you to call them and give them those points. In casual operation, I have made over 200 contacts on a single contest weekend! A good place to check for contest schedules and to get some useful pointers is <http://www.contesting.com>

7. Operate remotely: This one has everything — adventure, travel, and excitement rolled into one! You can make it as involved or as easy as you like. If you are adventurous, you can put together a portable HF station and operate from a mountaintop. Or, you can take the XYL or OM on a trip to Catalina Island and operate as a relatively rare IOTA station (NA066). No matter which way you go, you will learn an awful lot and end up with a portable station that you will be able to use anywhere.

8. Volunteer: Just as there are contests almost every weekend, there are events almost every weekend that need Amateur Radio support. Check with the club, and they can point you to the right people and the right groups. Not only will you get valuable training and experience, you will earn thousands of Karma points for your good deeds.

Down Below *Continued*

I am sure that you can think of one or two items to add to this list — please do! The point is that there is plenty of activity still in Ham Radio, even if we are in the Doldrums of the solar cycle. If you aren't having fun, it's your own darn fault!

73,

John, WA6L

Some CAL FIRE Photos



Meeting Photos



Amateur Radio At Large

From Rich N6NKJ



Hello again,

Boy, what a meeting we had in September. I was glad that the members took the time to hear both proposals for the new radio equipment for CAL FIRE and ask some hard questions about it. We will not know which proposal will win until the 27th of September.

I was suppose to help with the Thunderboat races on September 15th, but the day before, I hurt my back helping one of our sons move some furniture. I went to urgent care and was told to stay off my feet for two or three days. I want to apologize to our friends in REACT and assure them I would have helped if I had not been injured.

We are looking for individuals to become involved with the VIP Red Flag Program. The reason for this is that there is still a need for more people to become involved with the CAL FIRE VIP Program. If you do decide to become a member of the VIP Program, this would be your only assignment, and just as I do for all of the groups involved with the Red Flag patrols, I would be the one calling you to go on patrol. We have had two very bad fires in the county just this month; the Pines Fire and then the Angel Fire, so you are needed and wanted to help us with this program. You do need to go through some training which is very easy. You need to take the Wildland Fire Safety Course, and then either ride with someone who has been on patrol before, or go through a mini course on the day of the patrols. There is no plan to drop any of the great groups that have been part of the VIP Red Flag Patrol Program, I am just trying to make sure there are enough people to keep this vital program going for many years to come. In case you are wondering what the VIP stands for, it is Volunteers In Prevention. There are a lot of different programs that Roxanne Provaznik runs, and the Red Flag Patrol is just one of them.

I also want to comment on another aspect of the Red Flag Patrols. Many years ago, when I first became part of the Red Flag patrol, we were used much more than we are now. We use to put our 2 meter rigs in a VIP Captain's car and go out

with him to a fire, but since CAL FIRE has better communications now, we do not do this anymore.

The last time Ham Radio Operators were sent to a fire was during the Cedar Fire, and they were sent to Julian to provide a link for the CAL FIRE Public Information Officers and the Fire Information Officers.

In this morning's paper, September 20th, there is an article about the 1985 Mexico earthquake. The Mexican government held a earthquake disaster drill to make sure everyone knew what to do in case another quake hits Mexico. In this article, a spokesperson from the Mexican government and one from the U.S. said how unprepared citizens in both countries were and that we need to start gathering everything and anything we need to survive an earthquake or some other sort of disaster. The person from the U.S. said that California has had a major earthquake every 150 to 200 years, and the BIG ONE could come at any time. Are you prepared and ready?

That's all for now, but as always, please remember our brave men and women who are protecting us and who are in harms way.

Until next time, 73's
Rich, N6NKJ

Welcome New Members

New Members

Peter Block, KG6HBX WAMO #1746

Welcome Back Returning Members

ED Sack, W3NRG WAMO #1716
Elaine Sack, KG6ZXI WAMO #1721
Dan Sack, KG6WJP WAMO #1722

Total Members 265

Thank you to all members who have renewed. Please check the mailing label on your Counterpoise. If your membership has expired, please take a moment to complete and return the Renewal Application located within this Counterpoise.

73 Ann, KC6TBG

What is VIP Red Flag Patrol?

By: Paul Rios, KC6QLS



I had the privilege to interview Roxanne Provaznik, Fire Prevention Specialist II, with the California Department of Forestry and Fire Protection, also known as CAL FIRE. She is the person that activates the VIP Red Flag Patrols through Rich Beisigl N6NKJ, Amateur Radio Liaison to CAL FIRE. He then gathers Amateur Radio Volunteers to conduct the duties of Red Flag Patrol.

VIP Red Flag Patrol is short for Volunteers In Prevention Red Flag Patrol. A Volunteer In Prevention is Amateur Radio Operators driving around being additional Eyes and Ears for CAL FIRE. The Volunteers report back to CAL FIRE by way of Amateur Radio. This has been going on since the start of the program. In 1976 a few years after the 1970 Laguna Fire, Battalion Chief Doug Allen approached Art Smith, W6INI about helping with Red Flag Patrols. These two men created the pilot program which is now used state wide. They were the fathers of supplemental communications who created the entire program by using private civilians/radio operator's cooperating with CDF. Also, they started the animal rescue program and both programs are now used state wide.

Roxanne started with CDF at the age of 18. She wanted to be a fire fighter, passed all tests and qualified, but was put into Prevention due to bad eyes. She then became a Seasonal Fire Prevention Assistant and ran the Volunteer Fire Prevention Program which includes Red Flag Patrol. She has been with CDF 27 years now and currently has the title of Fire Prevention Specialist II. She runs the Volunteer Prevention Program.

She is the third generation of fire fighters. Her Grandparents started the Spring Valley Fire Dept. and her Grandfather was a Chief and Grandmother

drove a fire engine and her father was Chief of the Department in the 80's. Roxanne's husband is Fire Captain at CAL FIRE.

Question:

What is the origin of Amateur Radio in Red Flag Patrol?

During Holiday Patrols like the 4th of July or Labor Day where a lot of people with days off gather, the potential for fires is greater, and so we have patrolling. There are three types of patrols that we have and the law enforcement patrol is very low key, and we put you out there in civilian clothes being our eyes and ears in key locations to write down personal descriptions, vehicle descriptions and gather as much information as you can in a very inconspicuous way as you are just civilians out there and can gather a lot of info so it is a very effective Civilian Patrol. When people are off work and fire potential is high, we have a "high visibility" and "see and be seen" type of thing, called our Holiday Patrols, such as the 4th of July. The Red Flag Patrol is sort of a weather driven event - wind driven. Typically we get our high winds from September through April and we get winds with high temperatures with low humidity and so the slightest spark can start a fire. So if we can have the radio operators out there in the back country and spot the fires quickly, we can respond to them and send everything we have but the kitchen sink and stop them before we get another Cedar Fire. The goal is to get the fire spotted and responded to at an early stage, and this is where Amateur Radio Operators fit in.

We have eight baskets for Amateur Radio Operators. In the baskets are binoculars so we can look for smoke and behaviors that may start fires. We have hand held Kestrels so we can check the weather conditions and log them. We have first aid kits, if anyone does happen to get injured, we have ice chests so they can have ice and cold water. We have compasses so they can figure out where they are and where the smoke is relative to their position. We have forms so they can answer all the questions that I am going to be asking them as far as how big the fire is, what color is the smoke, so they can get all those questions answered when they get on the air so we can get the resources out to them quickly.

Continued on page 14

What is VIP Red Flag Patrol?

Continued

Question:

Do you have a Story about Amateur Radio?

We have been very fortunate that we have had very quiet patrols, which is exactly what we want. We did have an F14 crash west of Highway 67, and I believe it was one of the Amateur Radio Operators that called it in. So we were able to get our resources out there, the Navy was able to get their resources out there to the scene, and that is the whole idea to identify what is happening and get resources out there to respond quickly.

Question: When a fire is in progress, what jobs do Amateur Radio Operators do?

Amateur Radio Operators' job is to help with communications. In the good old days, CDF only had 1 – 2 frequencies, and they were over taxed. We used Amateur Radio Operators in various positions to help with the over load. Due to better cell phones and better radios, we have better communications. But what we do now is have supplemental communication but just on the information side of it. So basically at base camp we put an operator with the team information officer and an operator with every single field information officer and they can communicate back quickly. So when I have a rumor or a question I can get a hold of them and so when we are getting a whole lot of questions at the information center and a header coming up, we can get answers. Amateurs help us focus on communications back to base and give timely accurate information. Cell phones don't always work, but radios are effective. Also, because what you do is listen to radios, there are people available listening whereas with cell phones we could end up having to leave voice mails, and so we don't have that quick effective communication like the radios have.

In 1985, The Morretti Fire was one of the first times to use supplemental communications on a fire, and it was the first time the radio operators were coming back with all these great stories about how they were able to step over burning le

ogs and chase fires, which put you operators in danger. So that was not good. We needed help without putting operators in danger. So because of all the neat tales of the operators, and I realized that if some of our employees weren't smart enough to keep you guys out of harms way that we were going to have to create a fire safety training for everybody so that the Amateur Radio Operators would realize what is dangerous and they could feel safer on the fire lines. Ideally, Amateur Radio Operators should never be put in a dangerous situation. The fires are so unpredictable and by being aware of what to look for they can be safer and stay out of danger. So we developed a 6 hour training course after this fire to keep everyone safe and have had no injuries so far. The success story of training is the Sycamore Fire in 1994. The Amateur Radio Operators were on Highway 94 and allowed to be there as Supplemental Communications. As they were going down Highway 94, they saw a fire down below them and remembered their training and left the area, the fire came up over the Highway where they would have been.

Question:

What type of equipment do we need to wear?

When base camp is set up they are issued "Nomex" which is what firefighters wear, the protective yellow clothing, and they will be issued that on the fire lines if they are in that situation. Hopefully, they will never be in that situation where they need it, but if they are, that will be issued. We recommend long pants, long sleeve shirts, all cotton because synthetics melt, and that if they are in a situation where there is an incident, they will stay safe and clothing won't add to their injury.

Question: So how does the call out work?

When winds are blowing county wide, temperatures are up, humidity is low and conditions are right for a fire that is when we know we need it. I will call Rich Beisigl, N6NKJ because he is the Red Flag Patrol VIP Coordinator and then it is out of my hands. He will make the phone calls. It's a one stop shopping. I make one

phone call and Rich coordinates all the operators to work together. I call Rich and he makes everything happen. Then all we simply do is just get people where we need them, resources where we need them, etc. If we are running patrols, I call Rich and tell him what we need, where we need them, and he makes it happen by coordinating everyone to be there. I don't worry about it. He handles all the radios and all the communications. And the nice thing is that you are the experts on the radio and we are not. So it works out very nicely. You guys handle the radios, Ken Tagami WA6BCC did it before Rich, and we are extremely happy with all of the good service we have gotten over the years. We reimburse you for gas as funds are available, but it is all out of the goodness of your hearts and your willingness to volunteer and help your community, and that is commendable that people want to help out on their own time and on their own dime to help their community. I admire what you guys are doing. I get paid to do this, but you guys do not, and again I appreciate all of the time and hours you guys put in over the years. Whether it is ARCEC or REACT or ARES or another group, it is a great bunch of people with a "Can Do Attitude" and, I am extremely happy with everything you guys have done over the years.

Question: What do you see in the future?

Technology is changing a lot and making things easier along the way. It takes the people out there driving and seeing and being seen that we need – high visibility. And even though we have all the high tech radios and gear, it is still just the basic – just two people driving the Red Flag Patrol and seeing what is going on and calling it in and getting the resources out there quickly to handle the situation quickly to avoid another Cedar Fire. So again, it still just goes back to basics and people driving around spotting the fires and getting resources there quickly and doing what they have been doing for so many years.

Rich added that the Ham Radio Operators he talked to felt it was the most worth while event they had ever been out on and they are looking forward to participating again.

And another thing that I have noticed is that the participation has been increasing on the Red Flag Patrols. Therefore, we need to get more

equipment as we have had more volunteers than in the past. Also, last patrol we had extra people in the vehicles. We have 10 incident management teams statewide, and we bring one in and take over management of the fire. We still have informational teams, but it is the management team who makes the calls and directs resources. We give the team a fact sheet on the availability of using supplemental communications, but it is up to the management team as to who gets called in to handle the event. I can use low key people, but the team makes the decisions on who and when to use what resources. The more people who want to volunteer and be trained the more resources we will have available to use when the need arises.

So in closing, I find that Roxanne has some very important needs to be filled by the local Amateur Radio Community, and we are willing to fill them. We need to be trained and willing to take instructions from CAL FIRE's Liaison and Roxanne. When the time comes to help CAL FIRE, we will be better prepared to respond effectively and to meet CAL FIRE needs. Hopefully, you now have a better understanding of how and what CAL FIRE is and what it does.

73 Paul Rios KC6QLS

Foot Note:

Laguna Fire in 1970
Acres Burned: 175,425
Structures Lost: 382
Fatalities: 6
Cause: Powerlines
Amateur Radio Operators used? No

The Morretti Fire In 1985
Acres Burned: 5,500
Structures Lost: 0
Fatalities: 0
Amateur Radio Operators used? Yes

Sycamore Fire in 1994
Acres Burned: 10,000
Structures Lost: 0
Fatalities: 4
Cause: Illegal Campfire
Amateur Radio Operators used? Yes

Amateur Radio Club of El Cajon
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Take a look on your mailing label. Is the expiration date in 2006? Does it say EXPIRED? That means it's time to mail in your yearly dues. Please take time to fill out the membership application in this newsletter, and mail it in, or bring it to the next meeting.



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